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(54) **REPRESENTATIVE VECTOR GENERATING SYSTEM AND METHOD FOR VECTOR QUANTIZATION**

(57) Abstract:

PURPOSE: To prepare a representative vector minimizing an expected value of a distortion error by providing a specific representative vector initializing means, a specific contention learning means and a specific new representative vector generating means to the system.

CONSTITUTION: A representative vector initializing means generates initially a representative vector having a value equal to an input vector selected at first at random to start processing. In the processing, a contention learning means learns contention of a representative vector having been already generated based on the input vector read sequentially. Every time the contention learning is repeated for a prescribed number of times, a new representative vector generating means calculates the total sum of distortion errors for all input vectors and their representative vectors in a dominant area of each representative vector, selects a representative vector with the highest sum and generates one new representative vecto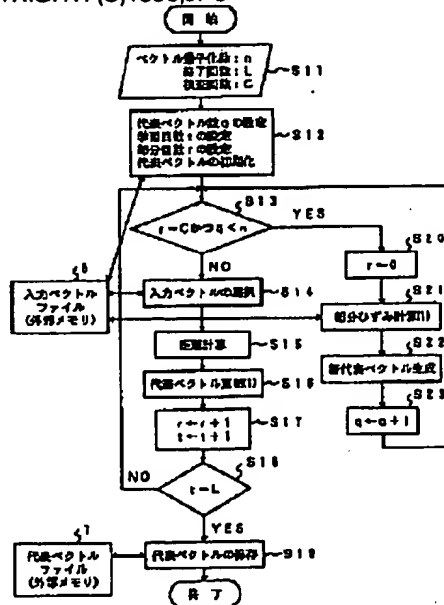r or over with the same vector value as the representative vector. Then the new representative vector is added as an object of the contention learning and the contention learning is repeated for the object.

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